

# TECHNICAL PRODUCT SUBMITTAL

## AMICUS LAHP-1654HT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow		kW
Total Power input (EN14511) external air+7C 30/35 flow		kW
COP (EN14511) external air+7C 30/35 flow		W/W
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		4
Seasonal Efficiency Low temperature	%	157
Energy Label Rating High temperature		A++
SCOP High Temperature		3.29
Seasonal Efficiency High temperature	%	129
GENERAL		
Refrigerant type		R410A
Compressor Type		E.V.I. Scroll
Number of Compressors		4
Number of Circuits		2
Capacity steps		4
Minimum capacity step	%	25
ELECTRICAL DATA		
Power supply	V/Ph/Hz	415/3+N/50
Maximum input power	kW	80
Maximum input current standard unit	A (per phase)	143
Peak input current standard unit	A (per phase)	285
Peak input current unit with soft start option fitted	A (per phase)	215
Fuse rating (delayed)	A	200
Optional Hydraulic kit input power	kW	2.45
Optional Hydraulic kit maximum input current	A	4.78
FANS		
Fan type (standard unit)		Axial
Number of fans (standard unit)		4
Air flow rate for design	m <sup>3</sup> /h	22737
Sound power level <sup>2</sup>	dB(A)	79
Sound pressure level <sup>3</sup>	dB(A)	47
WATER		
Flow/Return connections	inch	3
Nominal flow rate	L/sec	10.36
Pressure drop across the heat exchanger	kPa	48.1
Minimum water content in the user circuit	litre	820
BREEAM DATA		
Total refrigerant charge	kg	49.3
Operational life	Years	20
Global warming potential		2088

Amicus air to water heat pumps must be installed and maintained in line with the Installation Commissioning and Maintenance Instructions which are available on the Literature & Downloads section of [www.lochinvar.ltd.uk](http://www.lochinvar.ltd.uk)

# TECHNICAL PRODUCT SUBMITTAL

## AMICUS LAHP-1654HT AIR SOURCE HEAT PUMP



LAHP-1654HT			Heating OUT					Max Outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	60C		
performance data	-10	Heat Output (KW)	96.2	96.9	97.4	98.6	100.0	N/A	55°C
		Efficiency COP	2.5	2.3	2.1	1.9	1.7	N/A	
	-9	Heat Output (KW)	98.6	99.2	99.6	101.0	103.0	105.0	60°C
		Efficiency COP	2.6	2.4	2.1	1.9	1.7	1.6	
	-8	Heat Output (KW)	101.0	102.0	102.0	103.0	105.0	107.0	60°C
		Efficiency COP	2.7	2.4	2.2	2.0	1.8	1.6	
	-7	Heat Output (KW)	103.0	104.0	105.0	106.0	107.0	110.0	60°C
		Efficiency COP	2.7	2.5	2.2	2.0	1.8	1.6	
	-6	Heat Output (KW)	106.0	106.0	107.0	108.0	109.0	112.0	60°C
		Efficiency COP	2.8	2.5	2.3	2.0	1.8	1.7	
	-5	Heat Output (KW)	109.0	109.0	110.0	110.0	112.0	115.0	60°C
		Efficiency COP	2.9	2.6	2.3	2.1	1.9	1.7	
	-4	Heat Output (KW)	112.0	112.0	113.0	115.0	116.0	120.0	60°C
		Efficiency COP	2.9	2.6	2.4	2.2	1.9	1.8	
	-3	Heat Output (KW)	117.0	117.0	118.0	120.0	122.0	125.0	60°C
		Efficiency COP	3.1	2.8	2.5	2.3	2.0	1.9	
	-2	Heat Output (KW)	122.0	123.0	123.0	125.0	126.0	130.0	60°C
		Efficiency COP	3.2	2.9	2.6	2.4	2.1	1.9	
	0	Heat Output (KW)	133.0	134.0	135.0	136.0	139.0	142.0	60°C
		Efficiency COP	3.5	3.2	2.9	2.6	2.3	2.1	
5	Heat Output (KW)	159.0	160.0	162.0	164.0	167.0	170.0	60°C	
	Efficiency COP	4.2	3.8	3.4	3.1	2.8	2.5		
10	Heat Output (KW)	176.0	178.0	179.0	181.0	184.0	187.0	60°C	
	Efficiency COP	4.7	4.3	3.8	3.4	3.1	2.7		
15	Heat Output (KW)	193.0	195.0	196.0	197.0	199.0	202.0	60°C	
	Efficiency COP	5.3	4.7	4.2	3.7	3.3	3.0		
20	Heat Output (KW)	207.0	208.0	209.0	211.0	212.0	215.0	60°C	
	Efficiency COP	5.7	5.1	4.5	4.0	3.5	3.1		
25	Heat Output (KW)	221.0	223.0	224.0	226.0	228.0	231.0	60°C	
	Efficiency COP	6.1	5.4	4.8	4.2	3.7	3.3		